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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/692,637

10/24/2003

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EXAMINER

PALABRICA, RICARDO J

ART UNIT

PAPER NUMBER

3663

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/692,637	<b>Applicant(s)</b> LIEBLER-RANZUS, MICHAEL	
	<b>Examiner</b> Rick Palabrica	<b>Art Unit</b> 3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1, 2 and 4-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, and 4-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. In view of the Appeal Brief filed on 12/17/07, PROSECUTION IS HEREBY REOPENED. New grounds for rejection are set forth below.

The previous examiner's 4/16/07 final Office action is withdrawn and replaced with this one.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/Jack W. Keith/

Supervisory Patent Examiner, Art Unit 3663

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Johansson et al. (U.S. 4,999,153), who disclose a spacer for a fuel assembly for a boiling water reactor (see Figs. 1-7).

Johansson et al. disclose a frame formed with outer webs and inner webs oriented crosswise to each other (see Fig. 2 and spacer 29 for outer web and Fig. 7a for inner web).

As to claim 1, applicant's claim language reads Johansson et al. as follows: a) "outer web" reads on the combination of element 66 and element 29 (see Fig. 4 and col. 6, lines 43+); b) "gill" reads on the configuration formed by element 74 and aperture 76 (see Fig. 4); c) "projection formed by outer bulge in wall of outer web" reads on the transition region between element 66 and element 64 (see Fig. 6); d) "deflector lug" reads on deflector 64 (see Fig. 6).

Note from Fig. 6 that there is a plurality of these projections (i.e., transition regions) in a wall of the outer web.

Johansson et al. meet the claim limitations, "gills projecting outward to a given extent from said outer side" and "projections projecting outwardly to a greater extent

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than said given extent of said gills.” Applicant himself admits that there is not a single "given extent" projection of a gill as evidenced by the article “a”. The Federal Circuit could not have been clearer on this matter when it cautioned:

*“This court has repeatedly emphasized that an indefinite article ‘a’ or ‘an’ in patent parlance carries the meaning of ‘one or more’ in open-ended claims containing the transitional phrase, ‘comprising,’” KCJ Corp v. Kinetic Concepts, Inc., 223 F.3d 1351, 1356 (Fed. Cir. 2000).*

One can always find an extent (i.e. distance or length) along the projection formed on the outer bulge in the wall of the outer web of Johansson et al. that projects more outwardly (i.e., towards wall 70) than a distance or length in their gill (i.e., the combination of elements 74 and 76).

Johansson et al. also meet the claim limitation, “projections being disposed in a region of a respective said inner web.” Note that this limitation does not require that the projection be attached or directly connected to an inner web. The limitation only requires the projection to be in a region (or vicinity or area) of an inner web. Also, Applicant has not defined the term, “region”, and absent such definition, the examiner interprets the term broadly and reads it on Johansson et al.’s projection that is in a vicinity or area of an inner web (see Fig. 2)..

As to the limitation, “deflector lug formed integrally on a lower edge of said projections”, Johansson et al. also meet this limitation (see Fig. 6).

As to claim 2, note from Figs. 4 and 6 that the projections are formed below the gills.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johansson et al. in view of Nylund (U.S. 5,404,383). Johansson et al. meet the applicant's claim limitations except for the inner web configuration.

Johansson et al. do not provide details of their inner webs.

Nylund ('383) teaches a spacer for retaining the fuel rods in a BWR (see Abstract). Nylund teaches the use of guiding tabs to prevent a fuel bundle from getting stuck when being inserted in a fuel box (see col. 1, lines 18+).

As to claim 4, applicant's claim language reads on Nylund's inner web shown in Figs. 14 and 15, as follows: a) "lateral edge" reads on the linear (i.e., straight) portion of inner web 22; b) "first supporting section" reads on part of guiding tab 23 contiguous to said linear portion of inner web 22 (see also col. 3, lines 23+). Note that this first supporting section is integrally formed and laterally projecting beyond the lateral edge of web 22.

As to claim 5, note from Nylund's Figs. 14 and 15 that the lower edge of an inner web has a lower edge. Applicant's other claim language reads on said figures as follows: a), "second support section" reads on the curved part of

guiding tab 23; b) "inclined edge" reads on slanting edge 24 (see also col. 3, lines 25+).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus, as disclosed by Johansson et al., by the teaching of Nylund ('383), to have inner webs with guiding tabs, to gain the advantages thereof (i.e, prevent fuel bundle from being stuck in box), because such modification is no more than the use of a well known expedient within the nuclear art.

Note that in the resulting combination of Johansson et al. and Nylund ('383): a) the first supporting section extends to and is indirectly connected to the projection (as in claim 4); and b) the deflector lug 64becoms supported against the inclined edge 24 (as in claim 5).

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Johansson et al. and Nylund ('383), as applied to claims 4 and 5 above, and further in view of Nylund (U.S. 5,080,858).

As to claim 6, Nylund ('858) teaches the outer web as having projections with recesses (see Fig. 4). Nylund ('858) teaches that the recesses 13 in projection 12 are designed to reduce the material for the outer web of the spacer (see col. 2, lines, 32+).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus, as disclosed by the combination of Johansson et al. and Nylund ('383), by the teaching of Nylund ('858) to

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include recesses in the projections, to gain the advantages thereof (i.e., reduce material requirements for the web), because such modification is no more than the use of a well known expedient within the nuclear art. The recesses in the outer web can be designed, to support therein the inner webs and provide additional structural strength to the inner-outer web configuration, as a matter of design choice.

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

/Rick Palabrica/  
Primary Examiner, Art Unit 3663

January 22, 2008